



Quad Charts
PAP 01 through 17
April 14, 2011

Program Management Office

Status of PAP01: Role of IP in the Smart Grid

Updated January 11, 2011.

A#	Current Activities and Accomplishments
A8	D2 handoff to IETF SSO (Nov 2010)
A9	CSWG & SGAC reviews complete (Nov 2010)
A10	Governing Board recommended RFC be included in Catalog of Standards (Dec 2010)

I#	Issues, Concerns & Help Needed
I7	Network management, QoS issues should be addressed by SGIP . IP Suite WG created
I8	CSWG to work with IETF on cyber review of older standards

S	D#	Deliverables
✓	D1	Requirements for different Smart Grid applications
✓	D2	Identify Core set of IP protocols

S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
✓	TPMO1	PAP Initiation	2009-09	2009-09	SGIP	
✓	TPMO2	SSO Identified	2009-11	2009-11	Open SG-net IETF	D1, D2
✓	TPMO3	Requirements Handoff to SSO	2010-11	2010-11	IETF - Fred Baker	D2
✓	TPMO4	Standards Handback to PAPWG from SSO	2010-11	2010-11	IETF - Fred Baker	D2
✓	TPMO5	GB/SGIP Vote	2010-12	2010-12	Administrator	
🟢	TPMO6	Plenary Vote	2011-04		Administrator	
🟢	TPMO7	Post to Catalog or IKB	2011-04		PAP01WG	
🟢	TPMO8	Close PAP	2011-04		PAP01WG	D2

S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Develop a set of requirements for different Smart Grid applications	Dec 2009	Dec 2009	Open SG-net	D1
🟢	T2	Identify a core Protocol Suite for IP-based Smart Grid	Apr 2011		IETF	D2
✓	T3	Develop application specific protocol requirements	Jul 2010	Jul 2010	Open SG-net	D1
✓	T4	Meet at OpenSG on July 22 to develop action plan	Jul 2010	Jul 2010	PAP	

Status	Schedule	Deliverables	Resources
January 2010	🟢	🟢	🟢
February 2010	🟢	🟢	🟢
March 2010	🟢	🟢	🟢
April 2010	🟡	🟡	🟢



May 2010			
June 2010			
July 2010			
August 2010			
Sep 2010			
Oct 2010			
Nov 2010			
Dec 2010			
Jan 2011			
Feb 2011			

Status of PAP02: Wireless Communications for the Smart Grid (6.1.5)

Updated April 13, 2011.

A#	Current Activities and Accomplishments	S	D#	Deliverable
A6	Version 1.0 Draft Guidelines for Assessing Wireless Standards for Smart Grid Application is now moving through final SGIP Processes for Publication	✓	D1	Application Communication Requirements Matrix Template
A9	Plans and Activities are underway for followon work to enhance the Guidelines. Current activities surround enhancing the terrain, topology and clutter models for the next version of the guidelines. Models are being reviewed as well as standard definitions for terrain and wireless performance modeling. These models once adopted will become a part of the next version of the guidelines document.	✓	D2	Application Communication Requirements Matrix
		✓	D3	Wireless Capability Matrix Template
		✓	D4	Wireless Capability Matrix
		✓	D5	Guidelines on Wireless Assessment
A10	Open SG, Other Priority Action Plans and Industry at large continues to develop requirements for next generation applications. These will be brought into the sample analyses for the next version of the guidelines.			

I#	Issues, Concerns & Help Needed	S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
I3	PAP encompasses a broad scope that covers many standards and associated technologies from multiple SDO organizations	✓	TPMO1	PAP Initiation	2009-08	2009-08	Administrator	
I4	Decision making on Wireless technologies remains a local decision. This requires the industry to understand the techniques and tools available in these guidelines.							
The "A" TPMO Tasks listed below are for NISTIR Version 1								
		✓	A-TPMO2	SSO Identified	2009-12	2009-12	PAP02WG	
		✓	A-TPMO3	Requirements Handoff to SSO	2010-01	2010-08	PAP02WG	
		🟢	A-TPMO4	Standards Handback to PAPWG from SSO (NISTIR Version 1)	2011-03		NIST	
		🟢	A-TPMO5	GB/SGIP Vote	2011-04		Administrator	
		🟢	A-TPMO6	Plenary Vote	2011-05		Administrator	
		🟢	A-TPMO7	Post to Catalog or IKB	TBD		PAP02WG	
The "B" TPMO Tasks listed below are for NISTIR Version 2								

✓	B-TPMO2	SSO Identified	2009-12	2009-12	PAP02WG	
	B-TPMO3	Requirements Handoff to SSO	TBD		PAP02WG	
	B-TPMO4	Standards Handback to PAPWG from SSO (NISTIR Version 2)	TBD		NIST	
	B-TPMO5	GB/SGIP Vote	TBD		Administrator	
	B-TPMO6	Plenary Vote	TBD		Administrator	
	B-TPMO7	Post to Catalog or IKB	TBD		PAP02WG	
	TPMO8	PAP Complete	TBD		PAP02WG	
S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	NIST Technical Wireless Evaluation Model Development	Dec 2009	Dec 2009	NIST Technical	D5
✓	T2	SSO Requirements Development by Open SG Net	May 2010	May 2010	Open SG Net	D1,D2
✓	T3	SSO Wireless Capabilities Matrix	Jan 2010	Aug 2010	IEEE 802, 3GPP, 3GPP2, ATIS, TIA	D3,D4
✓	T4	Draft Smart Grid Wireless Guidelines Report	July 2010	Nov 2010	PAP 2 and SSO Contributors	D5
✓	T5	PAP2 votes on Wireless Guidelines Report to be published as NISTIR	January 2011	January 2011	PAP2/NIST	D5
🔴	T6	Revisions of the wireless characterization matrix	July-2011		SSOs	D4

Status	Schedule	Deliverables	Resources
January 2010	🔴	🔴	🔴
February 2010	🔴	🔴	🔴



March 2010			
April 2010			
May 2010			
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July 2010			
Aug 2010			
Sept 2010			
Oct 2010			
Nov 2010			
Dec 2010			
Jan 2011			
Feb 2011			
March 2011			

Status of PAP03: Develop Common Specification for Price and Product Definition

Updated March 30, 2011.

A#	Current Activities and Accomplishments	S	D#	Deliverables		
A28	Worked through UCA and IRC issues for EMIX to ensure mutual understanding	✓	D1	High level scoping document		
		✓	D2	Price use cases and requirements		
A29	Using work in Houston Tiger Team to improve specification and examples	✓	D3	Information model and summary of product characteristics of interest to energy consumers		
		✓	D4	Draft price and product definition specification to others		
		✓	D5	Requirements Evaluation and Artifacts		
		🔄	D6	Deliverables Evaluation and Artifacts		

I#	Issues, Concerns & Help Needed	S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
I1	Need focused coordination with DER & PEV PAPs and to include specific tasks in PAP09 and PAP11	✓	TPMO1	PAP Initiation	2009-07	2009-07	PAP03WG	TWiki
I8	Need to integrate PAP07 requirements. See T13.	✓	TPMO2	SSO Identified	2009-07	2009-07	PAP03WG	TWiki
I9	Will use Tiger Team to examine deliverables of PAP03/04/09 and others in context.	✓	TPMO3	Requirements Handoff to SSO	2010-07	2010-07	PAP03WG	D5
		🔴	TPMO4	Standards Handback to PAPWG from SSO*	2011-03		OASIS, ZigBee	
		🟡	TPMO5	GB/SGIP Vote	2011-04		Administrator	
		🟡	TPMO6	SGIP Plenary Vote	2011-04		Administrator	
		🟡	TPMO7	Post to Catalog or IKB	2011-04		PAP03WG	
		🟡	TPMO8	Close PAP	2011-04		PAP03WG	N/A

S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Develop high level scoping document	2009-11	2009-11	NAESB	D1
✓	T2	Develop price and product definition use cases & requirements	2009-11	2010-04	NAESB	D2
✓	T3	Meet and present status on deliverables at Grid-Interop	2009-11	2009-11	PAP03WG	D1
✓	T4	Plan to import and use material from PAP04	2009-12	2009-12	NAESB	D2
✓	T5	Plan to import and use material from PAP04	2009-12	2009-12	OASIS	D3
✓	T6	Plan to import and use material from PAP04	2009-12	2010-05	ZigBee	D3

✓	T7	Data model draft publicly visible	2010-02	2010-02	OASIS	D3
✓	T8	Data model draft publicly visible	2010-02	2010-04	ZigBee	D3
✓	T9	Draft price and product definition specification to others	2010-04	2010-05	OASIS	D4
✓	T10	Draft price and product definition specification to others	2010-04	2010-04	ZigBee	D4
✓	T11	Requirements evaluation; define scope/schedule/deliverables	2010-06	2010-06	PAP03WG	D5
TBD	T12	Deliverables evaluation; define scope/schedule/deliverables [subsumed by TPM08 and TPM09 above]	N/A	N/A	PAP03WG	D6
✓	T13	Deliver requirements from PAP07 to OASIS Energy Market Information Exchange TC	2010-10	2010-10	PAP07	D2

Status	Schedule	Deliverables	Resources
January 2010			
February 2010			
March 2010			
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November 2010			
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January 2011			
February 2011			
March 2011			
April 2011			

Status of PAP04: Develop Common Schedule Communication Mechanism for Energy Transactions

Updated March 31, 2011.

A#	Current Activities and Accomplishments	S	D#	Deliverable
A14	xCal submitted to IETF to finish Standards Track process July 2010	✓	D1	Update pre-existing IETF standards for extensibility
A17	The WS-Calendar TC is addressing SGIP guidance and working on their next draft.	✓	D2	Standard XML Serialization for Bi-directional Translation
A18	PAP04 Requirements delivered in July 2010 to WS-Calendar	✓	D3	Use cases and requirements to test the standard
A19	WS-Calendar planning Formal Public Review in September/October 2010	✓	D4	Associated semantics for schedule performance related to WS-Calendar standard
A20	Consumption of PAP04 work in NAESB Energy Usage Public Review Draft, August 2010	✓	D5	Create essential WS APIs for Calendars and Schedules
A21	WS-Calendar out for formal 60 day public review September 24, 2010 through November 23, 2010	🔄	D6	Develop improved WS Calendar: Align APIs and semantics across SDOs
A23	Comments on the WS-Calendar public review have been made to assure coordination between PAPs 03, 04, and 09 as the others move toward public review			
A24	PAP03 includes detailed applications of WS-Calendar. The most recent draft of EMIX and its XML Schemas using WS-Calendar were available November 1			
A25	PAP07 schedule and other requirements for DER are being addressed through WS-Calendar and the recent versions of EMIX			
A26	The coordination of WS-Calendar, EMIX, and Energy Interoperation is proceeding, with formal comments from the EMIX team to the OASIS WS-Calendar TC to be delivered.			
A27	[[http://www.oasis-open.org]] OASIS Energy Market Information Exchange is in formal Public Review ending 17 December 2010. EMIX is a full use of the capabilities of WS-Calendar, thus is an extended example for the use of PAP04.			
A28	OASIS Energy Interoperation has been released for Public Review prior to Grid-Interop. This Draft Standard uses WS-Calendar and EMIX extensively, and is an extended example for the use of WS-Calendar.			
A29	Standards handback to the PAP04WG took place October 2010			
A30	The PAP04WG determined that the Public Review Draft of WS-Calendar met the NAESB and PAP04WG requirements November 2010			
A31	Public Review Completed. Approximately 50 comments received.			



A32	TC is working January 2011 on completing next Committee Specification.
A33	CalConnect is working on delivering XML Schema (rather than RelaxNG) in January to simplify use in Web Services and make iCalendar and WS-Calendar easier to use, including interaction with BedeWorks and Exchange servers
A34	Schema updates completed January 2011
A35	New schemas greatly simplify use and explanation of WS-Calendar. Specification update in place, UML update pending
A36	Committee Specification Draft published January 2011 to lock schemas while EMIX and Energy Interoperation update
A37	CalConnect completing its portions of specification for next Public Review (decoupled from information model)
A38	Formal Public Review (15 day) for WS-Calendar was voted out of committee on March 18 and 25th
A39	The Formal Public Review for WS-Calendar has been published; comments requested by April 24. See Hot Links for details

I#	Issues, Concerns & Help Needed
I2	Other PAPs need to clarify their consumption of PAP04 output and coordinate as necessary.
I5	ZigBee has not clearly addressed PAP04 in its work to date (See PAP03 tables)
I6	Need to integrate PAP07 requirements in Public Review Draft (addressed here and in PAP03)

S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
✓	TPMO1	PAP Initiation	2009-07	2009-07	SGIP	
✓	TPMO2	SSO Identified	2009-07	2009-07	SGIP	
✓	TPMO3	Requirements Handoff to SSO	2009-12	2009-12	NAESB	D3
✓	TPMO4	Standards Handback to PAPWG from SSO	2010-4Q	2010-09	OASIS	
🕒	TPMO5	GB/SGIP Vote	2011-1Q		Administrator	
🕒	TPMO6	Plenary Vote	2011-1Q		Administrator	
🕒	TPMO7	Post to Catalog or IKB	2011-1Q		PAP04WG	
🕒	TPMO8	PAP Complete	2011-04		PAP04WG	
S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Update IETF iCalendar format to allow extensibility	2010-01	2009-09	CalConnect	D1
✓	T2	Standard XML serialization of	2010-01	2009-11	CalConnect	D2

		extensible iCalendar out for public review				
✓	T3	Standard APIs for Calendar-to-Calendar communications for inclusion in WS-Calendar	2010-08	2010-09	CalConnect	D4
✓	T4	Submit output of T2 to IETF for approval as Standards Track RFC	2010-05	2010-05	CalConnect	D1
✓	T5	Develop Smart Grid use cases and requirements for for use in WS-Calendar	2009-10	2010-04	NAESB	D3
✓	T6	Create Committee to develop service-oriented schedule profiles based on IETF xCalendar and APIs (WS-Calendar)	2010-01	2010-01	OASIS	D5
✓	T7	WS-Calendar work out for public review	2010-04	2010-05	OASIS	D5
✓	T8	Submission of WS-Calendar public review draft to IEC Power Management CIM	2010-05	2010-05	OASIS	D6
✓	T9	Development of Requirements by PAPWG [See NOTE]	2010-07	2010-07	PAP04WG	D3
✓	T10	Standards Handback to PAPWG from SSO	2010-4Q	2010-11	OASIS	D6

NOTE: Original [D3](#) completed; T9 addresses high level requirements from the NIST Framework and Roadmap.

Status	Schedule	Deliverables	Resources
January 2010			
February 2010			
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January 2011			
February 2011			
March 2011			
April 2011			

Status of PAP05

Updated April 11, 2011.

A#	Current Activities and Accomplishments
A23	AEIC met on 4/5 to review the supplied recommended changes.
A24	Closeout process will be complete for May SGIP Governing Board meeting.

S	D#	Deliverables
✓	D1	Utility requirements mapping
✓	D2	Expression of AEIC v2.0 Guidelines in terms of additional device class(es)
✓	D3	Revision of AEIC v1.0 Guidelines
✓	D4	Data type profiles for specific Use Case(s)
✓	D5	White Paper/Presentation on ANSI metering protocol standards
✓	D6	New capabilities as developed during PAP05 work
✓	D7	Publicly available training materials
✓	D8	Design Document
✓	D9	Analysis
✓	D10	Use Cases and Requirements
✓	D11	Gap Report

I#	Issues, Concerns & Help Needed
I10	SSO output did not change; unknown implications for closeout process.

S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
✓	TPMO1	PAP Initiation	2009-08	2009-08	PAP05WG	TWiki
✓	TPMO2	SSO Identified	2009-08	2009-08	PAP05WG	TWiki
✓	TPMO3	Requirements Handoff to SSO	2009-08	2009-08	PAP05WG	TWiki
✓	TPMO4	Standards Handback to PAPWG from SSO	2010-08	2010-08	AEIC	1,2,6,8
🟡	TPMO5	GB/SGIP Vote*	2011-05		Administrator	
🟡	TPMO6	SGIP Plenary Vote*	2011-05		Administrator	
🟡	TPMO7	Post to Catalog or IKB*	2011-05		PAP05WG	
🟡	TPMO8	Close PAP*	2010-06		PAP05WG	N/A

S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Map utility requirements expressed via AEIC Guidelines v2.0 to Device Classe	05/2010	08/18/2010	AEIC AMTI	D1

✓	T2	Express AEIC Guidelines v2.0 in terms of one or more additional Device Classe	05/2010	08/18/2010	AEIC AMTI	D2
✓	T3	Complete revision of AEIC Guidelines v2.0	12/2009	12/11/2009	AEIC AMTI	D3
✓	T4	Minimize the variations in data types transported from and to End Devices (real-time communication and enterprise data representations).	01/2010	03/22/2010	AEIC AMTI	D4
✓	T5	Socialize the existence of additional Tables within ANSI C12.21-2006 and C12.22-2008 via WP/PPT report.	05/2010	05/25/2010	Team Members	D5
✓	T6	Provide definitions and recommendtaions for Function Control Limiting Table values and general configuration.	05/2010	08/18/2010	AEIC AMTI	D6
✓	T7	Develop education package around ANSI C12.18-2006, C12.19-2008, C12.21-2006 and C12.22-2008.	04/2010	05/17/2010	Team Members	D7
✓	T8	Minimize variation and maximize interoperability of Application Services and behaviors within ANSI C12.18-2006, ANSI	06/2010	08/18/2010	AEIC AMTI	D8

		C12.19-2008, ANSI C12.21-2006 and ANSI C12.22-200				
✓	T9	PAP05WG to analyze D3; initial analysis on 9/13/2010	10/2010	11/29/2010	PAP05WG	D9
✓	T10	Report on Framework-based Use Cases and Requirements.	10/2010	11/29/2010	PAP05WG	D10
✓	T11	Create and deliver Gap Report.	09/2010	08/06/2010	AEIC AMTI	D11

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January 2010			
February 2010			
March 2010			
April 2010			
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


Status of PAP06








































Updated April 12, 2011.

A#	Current Activities and Accomplishments	S	D#	Deliverables		
A13	PAPWG reviewed one Use Case analysis and draft UML Meta Model.	✓	D1	Key Use Cases		
A14	PAPWG reviewed second Use Case analysis	✓	D2	Requirements		
A15	PAPWG closed the Use Case task	🔴	D3	UML meta model of ANSI C12.19-2008		
A16	PAPWG examined a new Use Case	🟡	D4	UML/TDL Binding		
A17	PAPWG codified some requirements for the UML meta model	🟢	D5	UML model refinement based on SGAC input		
A18	PAPWG agreed to manage the SGAC concern from PAP05 review	🟢	D6	Gap/Overlap Report C12.19/61968-9		
		🟢	D7	SGAC Endian Issue		

I#	Issues, Concerns & Help Needed	S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
I4	Need to get committed 'SSO' for D3, D4	✓	TPMO1	PAP Initiation	2009-08	2009-08	PAP06WG	TWiki
I5	Have made two public 'calls for assistance' with only a single response	✓	TPMO5	SSO Identified	2010-04	2010-04	PAP06WG	TWiki
I6	Need technical assistance to review the PAPWG output	✓	TPMO7	Requirements Handoff to SSO	2010-11	2010-11	PAP06WG	D2
		🔴	TPMO8	Standards Handback to PAPWG from SSO	2011-03		SSO	
		🟡	TPMO	GB/SGIP Vote	2011-05		Administrator	
		🟡	TPMO	Plenary Vote	2011-06		Administrator	
		🟢	TPMO	Post to Catalog or IKB	2011-06		PAP06WG	
		🟢	TPM10	Close PAP	2011-07		PAP06WG	

S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Identify key use cases (should occur before mappings are performed)	2010-11	2011-03	PAP06WG	D1
✓	T2	Requirements development	2010-11	2010-11	PAP06WG	D2
🔴	T3	Construct a meta model of ANSI C12.19-2008 that illustrates the class hierarchy represented by Decades, Tables and	2010-11		PAP06WG	D3

	components of Tables including core data types. Build the model in UML.				
 T4	Using a TDL machine readable representation, implement software to import the complete ANSI C12.19 table definitions into the UML model. Use appropriate inheritance to bind elements to the class hierarchy assembled in T3.	2011-03		MBurns	D4
 T5	Refine the UML model to correspond to the abstract semantic model being developed by the SGiP SGAC (dependency!)	2011-04		PAP06WG	D5
 T6	Produce a side-by-side comparison of the ANSI C12.19 UML model and the IEC 61968-9 UML model to illustrate gaps and overlaps; create Gap/Overlap report	2011-04		MBurns	D6
 T7	Address "endian" concern raised by SGAC review of PAP05 AEIC guidelines	2011-12		ANSI SC17WG2, IEEE SCC31-1377, MC TF EMD	D7

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March 2010			
April 2010			
May 2010			
June 2010			
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September 2010			
October 2010			
November 2010			
December 2010			
January 2011			
February 2011			
March 2011			

Status of PAP07: Energy Storage Interconnection Guidelines

Updated December 13, 2010

A	Current Activities and Accomplishments	S	D#	Deliverable
A1	(May 2010) The balloting for IEEE 1547.6 is completed. The balloting for IEEE 1547.4 is underway.	✓	D1	Task 0 Activities: Development of Scoping Study Document (MS Word version)
A2	(June 2010) IEC 61850 information models were developed for some of the key Use Cases, and have been submitted to the IEC TC57 WG17. These additions to IEC 61850-7-420 were reviewed by WG17 during the September 27-29 meeting in Montreal (see A6).	✓	D2	Task 1a Use Cases: List of ES-DER Use Cases (organized by type) (MS Word version)
		✓	D3	Task 4 Use Cases Descriptions for Key ES-DER Use Cases (MS Word version) - 1st draft complete
		✓	D4	Completing IEEE 1547.4 & .6 per IEEE rules See IEEE 1547 Web Page
A3	(August 2010) The first meeting of the IEEE 1547.8 was held in August, with multiple sub-groups formed to work on specific issues.	✓	D5	Initiated PAR for IEEE 1547.8 per IEEE rules See IEEE 1547 Web Page
A4	(August 2010) Mapping of 61850 DER models to SEP had multiple very successful meetings. Preliminary mappings have been accomplished, and consistency checking with other UML modeling of 61850 is underway. See A7 for updates on this process.	✓	D6	Information Exchange requirements for key ES-DER Use Cases submitted to IEC TC57 17
A5	(September 2010) Face-2-face meeting at the SGiP St. Louis meeting discussed what supporting activities should be done while PAP 7 goes into "monitoring and support" mode. The results are that PAP 7 will clean up the Scoping Document and turning it into a White Paper, developing the testing and certification requirements, and following up on ES-DER projects such as the IRC efforts and EPRI's Inverter Specifications. Cyber security issues were left to be handled in some other forum.			
A6	(October 2010) Met with IEC TC57 WG17 to discuss PAP 7 submittals. These were eagerly accepted for review, with the European vendors especially anxious to get a document they could use for production. In order to get such a document rapidly, it was agreed that a (informative) Technical Report (IEC 61850-90-7) would be developed by the end of November, for approval by National Committees within a couple of months - by March or April 2011. The vendors felt they could use this document, even though it was only informative (not normative) and details might change. In parallel, the longer, consensus-driven process for a normative standard (IEC 61850-7-420, edition 2) would be commenced, with the plan for standardization by 2012.			
A7	(October 2010) Mapping to both DNP3 and SEIPv2 are			



	in process. The DNP3 mapping is almost complete. The SEP effort has developed the basic 61850 models, but still needs to determine how to handle arrays and schedules. WS-calendar needs to be reviewed to determine if it can handle at least the basic scheduling.
A8	(October 2010) Cross-PAP and cross-modeling issues still need discussions. One approach has been discussed between 61850 and CIM, which is for CIM to model the primary 61850 Common Data Classes (CDCs) as complex datatypes in the CIM. This would simplify the retrieval of field data into the CIM.
A9	(December 2010) Update on IEC 61850 submittal: An IEC Technical Report, IEC 61850-90-7, is being submitted by mid December to the IEC for approval by National Committees as an Informative standard.
A10	(December 2010) Update on IEEE 1547.8: the first draft is almost available for review.
A11	(March 2011) IEC 61850-90-7 has benefitted from significant additional input from EPRI and from European manufacturers. Therefore, its submittal to the IEC has been delayed - it is expected during April.

I	Issues, Concerns & Help Needed
I1	(May 2010) See Task 4f: Need to develop an IEC 61850 UML model, expressed in Enterprise Architect, so that harmonization with CIM can be more precisely described and so that mappings to protocols like SEP 2.0 can use this same UML model for that mapping. This has been accomplished -October 2010.
I2	(October 2010) With IEC 61850 now (almost) available as a UML model in Enterprise Architect, harmonization with CIM should include the development in CIM of complex datatypes which map directly to 61850 Common Data Classes. This would greatly simplify the interface between 61850 and CIM. Possibly the SGIP Architecture Committee (SGAC) could review this proposal and determine if and how they might progress the concept.





















S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
✓	TPMO1	PAP Initiation	2009-08	2009-08	SGIP	
✓	TPMO2	SSO Identified	2009-08	2009-08	PAP 7	
✓	TPMO3	Requirements Handoff to SSO	2010-06	2010-06	PAP 7	D3 & D5
●	TPMO4	Standards Handback to PAPWG from SSO	2011-06		IEEE and IEC	
●	TPMO5	GB/SGIP Vote	2011-10		Administrator	
●	TPMO6	Plenary Vote	2011-10		Administrator	
●	TPMO7	Post to Catalog or IKB	2011-10		PAP07WG	
●	TPMO8	Close PAP	2011-11		PAP07WG	
S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T0	Scoping Document Draft v1	Nov-2009	Nov 2009	PAP 7	D1
✓	T1	Collect Use Cases	Mid-	Mid-Feb list of	PAP 7	D2

		with Brief Narratives	Feb-2010	Use Cases was completed	members	
✓	T2	Complete IEEE 1547.4 (Draft Guide for Design, Operation, and Integration of Distributed Resource Island Systems with Electric Power System) & .6 (Draft Recommended Practice For Interconnecting Distributed Resources With Electric Power Systems Distribution Secondary Networks)	Aug-2010	1547.4 is currently in ballot, as per IEEE 1547 balloting schedule, and due for final release by July/August 2010. 1547.6 is in pre-ballot and is expected to be released by December 2010	IEEE 1547	D4
✓	T3	Initiate IEEE 1547.8 to address interconnection issues of storage (title not known yet)	Feb-2010	IEEE PAR approved in March, with first meeting scheduled for August 2010	IEEE 1547	D5
✓	T4	Prioritize and develop details for key ES-DER Use Cases	Mar-2010	April 5 2010	NIST & PAP 7	D3
✓	T4a	Provide key ES-DER Use Cases to PAPs 3, 4, and 9, and discuss whether the ES-DER schedules and pricing signal requirements are covered adequately	April 2010	April 2010: Use Cases were provided	PAP 7, PAPs 3, 4, 9	D3
✓	T4b	Provide key ES-DER Use Cases to PAP 10 and discuss whether ES-DER issues are	April 2010	April 2010: Use Cases were provided - PAP 10 has deferred ES-DER	PAP 7, PAP 10	D3

		adequately covered under Energy Usage		considerations		
✓	T4c	Provide key ES-DER Use Cases to PAP 11 and discuss if additional PEV Use Cases need to be added to ES-DER Use Cases	June 2010	May 25: Use Cases were provided to PAP 11, discussions are taking place	PAP 7, PAP 11	D3
✓	T4d	Provide key ES-DER Use Cases to PAP 16 and discuss if any addition actions need to be taken by PAP 16 for handling Wind plus ES-DER	April 2010	April 2010: Use Cases were provided - no specific issues found at this time - the IEC TC57 WG17 may pick up later	PAP 7, PAP 16	D3
✓	T4e	Develop Information Exchange requirements for key ES-DER Use Cases	June 2010	June 2010	PAP 7	D3
✓	T4f	Hand off Information Exchange requirements for key ES-DER Use Cases to IEC TC57 WGs 14 & 17	June 2010	June 2010: Object modeling requirements handed off to IEC TC57 WG17	PAP 7	D6
✓	T5	SDOs to start development of safety codes and test methods to ensure safe and reliable implementation of Task 3 - specifically UL 1741	Aug 2010	August 2010: UL has officially initiated the process to revise UL 1741	UL	D5
🟢	T6a	Review and approve P1547.8 results as meeting PAP 7 requirements	June 2011		PAP 7	
🟢	T6b	Review and	Dec		PAP 7	



		approve IEC 61850 results as meeting PAP 7 requirements	2011			
	T6c	Review and approve UL 1741 results as meeting PAP 7 requirements	June 2011		PAP 7	

Status	Schedule	Deliverables	Resources
June 2010			
July 2010			
Aug 2010			
Sept 2010			
Oct 2010			
Nov 2010			
Dec 2010			
Jan 2011			
Feb 2011			
Mar 2011			

Status of PAP08: CIM/61850 for Distribution Grid Management

Updated April 9, 2010

A	Current Activities and Accomplishments	S	D#	Deliverable
A7	MultiSpeak (R) Version 4.1 delivered	✓	D1	UML Model of MultiSpeak
A8	CIMTool specification delivered	✓	D2	UML Tools for CIM (deliverable is internal to IEC TC57 WG14)
A9	Next steps identified for task T9	✓	D3	Interoperability Test of CIM Wires Model (completed Nov 2009 - refer to IEC)
A10	First pass of the messages identified in the Use Case is completed. The sequence diagram is being rewritten to simplify the model.	✓	D4	Distribution Grid ManagementSG UC nm3.doc: Updated version of the DGM Use cases ADA DOMA/FLIR/ VVWO Use Cases with requirements for Distribution Grid Management
A11	Resources have been engaged to develop deliverable D2 - The project tasks have been re-baselined.	✓	D5	ADA_Funcions_-_Sequence_Diagrams.pdf: ADA_Funcions_-_Sequence_Diagrams.pdf Use Cases with appropriate details for IEC TC57 WGs (61850 and CIM)
A12	Resources have been engaged to develop deliverables D6 and D7 - The project tasks have been re-baselined.	✓	D6	IEC 61968, Parts 3 & 5, CIM updated standards to meet the PAP 8 Use Case application-to-application requirements
A13	Data elements (i.e. requirements) for IEC 61968, IEC 61850 and ANSI C12.19 have been identified.	✓	D7	IEC 61850-7-4xx standards to meet the PAP 8 Use Case interactions with field equipment
A14	Requirements have been handed off to appropriate SSO.			

I	Issues, Concerns & Help Needed
I3	IEC TC57 WG14 needs additional experts and additional time from existing experts to update the CIM (IEC 61968 Parts 3 & 5, as well as other parts) to meet the requirements described in the PAP 8 Use Cases (See Help Wanted Page)

S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
✓	TPMO1	PAP Initiation	2009-09	2009-09	SGIP	
✓	TPMO2	SSO Identified	2009-11	2009-11	SGIP	
✓	TPMO3	Requirements Handoff to SSO	2010-11	2010-12	SGIP	
✓	TPMO4	Standards Handback to PAPWG from SSO	2011-07		IEC	
✓	TPMO5	GB/SGIP Vote	2011-10		Administrator	
✓	TPMO6	Plenary Vote	2011-10		Administrator	
✓	TPMO7	Post to Catalog or IKB	2011-10		PAP08WG	
✓	TPMO8	Close PAP	2011-11		PAP08WG	

S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	UML model for MultiSpeak	Jun-2010	Jun-2010	NRECA	D1
✓	T2	Team for UML tools for	Jun-	Jun-	IEC TC57	D2

		CIM	2010	2010	WG14	
✓	T3	Team for interoperability testing	Nov-2009	Nov-2009	IEC TC57 WG14	D3
✓	T4	Web conference CIM Modeling team	Nov-2009	Nov-2009	IEC TC57 WG14	D4
✓	T5	Create SG use case team	Nov-2009	Nov-2009	Mini-T&D team	D5
✓	T6	Use Case master list	Jan-2010	Jan-2010	Mini-T&D team	D5
✓	T7	Key Use Cases prioritized and refined	Feb-2010	Feb-2010	UCI	D5
✓	T8	Review Use Cases and complete Sequence Diagrams of those Use Cases	Apr-2010	Apr-2010	NIST, PAP 8	D6
✓	T9	Provide completed Use Cases to the IEC TC57 WGs 14 & 17	Nov-2010	Dec-2010	NIST, PAP 8	D6, D7
✓	T10	Track progress on developing CIM and 61850 models from the Use Cases	Dec-2011?	Dec-2010	IEC TC57 WG14 & 17	
●	T11	Modify UML tool for use with Multispeak	May-2011		EPRI	D2

Status	Schedule	Deliverables	Resources
April 2010	●	●	●
May 2010	●	●	●
June 2010	●	●	●
July 2010	●	●	●
August-2010	●	●	●
September 2010	●	●	●
October 2010	●	●	●
November 2010	●	●	●
December 2010	●	●	●
January 2011	●	●	●
February 2011	●	●	●
March 2011	●	●	●
April 2011			

Status of PAP09: Standard DR and DER Signals

Updated March 31, 2011.

A#	Current Activities and Accomplishments	S	D#	Deliverable
A11	The Working Group held a face-to-face review of OASIS Energy Interoperation jointly with UCAlug on July 20; guidance has been delivered to the OASIS TC		D1	Standard Vocabulary for DR and DER
			D2	Direct Load Management Communication
			D3	Collaborative Load Management Communication
			D4	Grid safety Signals
A12	Members of the ISO/RTO Council have joined the OASIS Technical Committee and have contributed additional requirements July 2010		D5	DER support (deferred)
			D6	Other signals and/or an extensibility mechanism
A13	Leadership meetings are taking place among the UCAlug OpenADR Task Force and OASIS Energy Interoperation TC			
A14	Southern California Edison has joined the OASIS Energy Interoperation TC			
A15	The OASIS Energy Interoperation TC has planned Formal Public Review autumn 2010			
A16	Detailed and close collaboration between the UCAlug OpenADR TF, ISO/RTO Council, and OASIS Energy Interoperation is continuing to address stakeholder issues on a timely basis			
A17	PAP09 reviewed the current OASIS Energy Interoperation draft standard at UCAlug's OpenADR Task Force on November 2			
A18	NAESB's Phase 2 Requirements were reviewed by the PAP09 working group at UCAlug's OpenADR Task Force on November 3			
A19	Comments on the WS-Calendar public review have been made to assure coordination between PAPs 03, 04, and 09 as 03 and 09 move toward public review			
A20	Collaboration and joint evolution of EMIX and Energy Interoperation have driven the respective goals of PAP 03 (EMIX) and PAP 09 (EI) as they both move toward public review			
A21	PAP07 schedule and other requirements for DER are being addressed through WS-Calendar and the recent versions of EMIX, and will be used by PAP09			
A22	Energy Interoperation is using the most recent draft of EMIX and its XML Schemas as			


































	available November 1
A23	Public Review Completed. Approximately 100 comments received. TC working on resolutions in conjunction with WS-Calendar and EMIX.
A24	WS-Calendar schemas locked late January permitting update of EMIX using simplified WS-Calendar/iCalendar base
A25	Teams established in Energy Interoperation TC to complete tasks for Public Review 2. Work has been in progress through January pending schema availability
A26	Worked through UCA and IRC issues for Energy Interoperation to ensure mutual understanding
A27	Using work in Houston Tiger Team to improve specification and examples
A28	Awaiting public review draft of EMIX to move forward to Public Review 2. Planned for April 2011

I#	Issues, Concerns & Help Needed	S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
I2	Comments on PAP-15 call for a standard DR interface for appliances; this appears to be more communication related	✓	TPMO1	PAP Initiation	2009-07	2009-07	SGIP	
I3	Completion is dependent upon completion of EMIX (PAP03) [public review scheduled November 2010]	✓	TPMO2	SSO Identified	2009-07	2009-07		
		✓	TPMO3	Requirements Handoff to SSO	2009-12	2010-04		
I4	Completion is dependent upon completion of WS-Calendar (PAP04) [public review ends November 2010]	✓	TPMO4	Standards Handback to PAPWG from SSO	2010-12			
		🔴	TPMO5	GB/SGIP Vote	2011-1Q		Administrator	
I5	Need to integrate PAP07 Requirements. See T14 and A22	🔴	TPMO6	Plenary Vote	2011-1Q		Administrator	
		🔴	TPMO7	Post to Catalog or IKB	2011-1Q		PAP09WG	
		🔴	TPMO8	Close PAP	2011-04		PAP09WG	
S	T#	PAP Work Tasks			Due	Actual	Resp	D#
✓	T1	Collect, Analyze, and Consolidate Use Cases and deliver requirements (inc DER)			2009-10	2010-04	NAESB	D1
✓	T2	Direct Load Management: (Residential Applications) Message Semantics Work DR, DER			2010-04	2010-04	Zigbee	D2
✓	T3	Collaborative Load			2010-	2010-04	OASIS	D3,D6

		Management: (C+I Applications) Message Semantics, DR, DER	04			
*	T4	Coordinate and merge Direct and Collaborative Load Management development tracks.	2010-04	deferred	NAESB	D1
🟢	T5	Submit collaborative load management task outputs to IEC TC57 when completed	no date		OASIS	D3
🟢	T6	Submit direct load management outputs to IEC TC57 when completed	no date		Zigbee	D2
✅	T7	Downstream user requirements/engagement	2009-10	2009-09	LonMark BACnet	D3
✅	T8	Downstream user requirements/engagement	2009-10	2009-10	Zigbee	D2
✅	T9	Additional message requirements for Distribution (none required)	2009-10	2009-10	MultiSpeak	D1
✅	T10	Resale and process for safety and interconnection (no action in PAP09; PAP07 has these issues)	2009-10	No Action	NAESB	D5,D4
✅	T11	Vocabulary for DR, DER actor names	2009-09		NAESB	D1
✅	T12	Development of Requirements by PAPWG [See NOTE]	2010-07		PAP09WG	D1
✅	T13	Standards Handback to PAPWG from SSO	2010-4Q		OASIS	D6
✅	T14	Deliver requirements from PAP07 to OASIS Energy Interoperation TC	October 2010		PAP07	

NOTES: Original [D1](#) completed 2009-12 and delivered 2010-04; T12 addresses high level requirements from the NIST Framework and Roadmap. T4 Was deferred by the WG; T10 was examined and no work was determined to be needed at this time. T5 and T6 will be completed when the other work is completed.

Status	Schedule	Deliverables	Resources
January 2010	🟡	🟢	🟢
February 2010	🟡	🟡	🟢
March 2010	🟡	🟡	🟢
April 2010	🟢	🟡	🟢

May 2010			
June 2010			
July 2010			
August 2010			
September 2010			
October 2010			
November 2010			
December 2010			
January 2011			
February 2011			
March 2011			
April 2011			

Status of PAP10: Standard Energy Usage Information:

Updated January 11, 2011.

A#	Current Activities and Accomplishments	S	D#	Deliverable
A1	NAESB PAP10 Standard successfully ratified	✓	D1	Use cases and requirements for standard energy usage information exchange
A2	PAP10 accepts NAESB Standard as meeting requirements	✓	D2	Short term plans for near-term customer access to usage data based upon today's installed meters
A3	PAP10 completes TPMO Tasks, Deliverable 3	✓	D3	NAESB PAP10 Energy Usage Information Standard: An Information model to satisfy present and future needs for exchange of energy usage information
A4	PAP10 completes Task 9, Deliverable 4	✓	D4	Implement a plan to expedite harmonized standards development and adoption: OASIS, IEC61970/61968, IEC61850, ANSI C12.19/22, PAP 17/ASHRAE SPC201, and ZigBee Smart Energy Profile (SEP) 2.0.
A5	PAP10 completes PAP Completion submission to GB			

I#	Issues, Concerns & Help Needed	S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
I1	Many CIM issues resolved but several still outstanding and not resolvable in first release of PAP10 standard. Resulting differences will result in non-integratable extensions to the IEC 61968 part 9	✓	TPMO1	PAP Initiation	2009-07	2009-07	SGIP	
I2	Need to provide PAP10 Deliverable 4 to SGIP Plenary and GB for discussion	✓	TPMO2	SSO Identified	2010-06	2010-06	PAP10WG	
		✓	TPMO3	Requirements Handoff to SSO	2010-06	2010-06	PAP10WG	
		✓	TPMO4	Standards Handback to PAPWG from SSO	2010-12	2010-12	SSO	
		✓	TPMO5	GB/SGIP Vote	2010-01	2010-01	Administrator	
		🟢	TPMO6	Plenary Vote			Administrator	
		🟢	TPMO7	Post to Catalog or IKB			PAP10WG	
		🟢	TPMO8	Close PAP			PAP10WG	

S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Reach out to ANSI C12, IEC, ZigBee, and OASIS for formal involvement. Plan additional engagement	2009-08	2010-01	UCAIug	D1
✓	T2	Create preliminary Requirements and Use Cases for early deployment	2009-10	2009-11	UCAIug	D2
✓	T3	Reach out to additional stakeholders especially commercial, industrial,	2010-01	2010-01	EIS Alliance	D1

	and residential				
✓	T4 Gather requirements and use cases for intra-premise scenarios that require inter-domain data exchange	2010-01	2010-01	EIS Alliance	D1
✓	T5 Survey current practice. Gather existing usage communications between energy suppliers and consumers, including providers of intermediary services	2010-07	2010-07	NAESB	D1
✓	T6 Consolidate use cases and requirements into a Basic Energy Usage Information straw model to contribute to NAESB standards process	2010-06	2010-06	PAP10 individuals	D1
✓	T7 Produce first delivery information model for today's meters and infrastructure (from utility information systems)	2010-02	2010-04	UCAlug	D2
✓	T8 Expedite harmonized standards development and adoption within the associated standards bodies	2011-01	2010-12	NAESB	D4
✓	T9 Produce Energy Usage information model specification	2010-12	2010-12	PAP10WG	D3

Status	Schedule	Deliverables	Resources
April 2010			
May 2010			
June 2010			
July 2010			
August 2010			
September 2010			
October 2010			
November 2010			
December 2010			
January 2011			
February 2011			

Status of PAP11: Common Object Models for Electric Transportation*



PAP 11 Closure Status

Mar 31, 2011

The SAE Hybrid Committee reported the following updates on SAE action items related to the updated SAE J2847/1

*** J2847/1 is scheduled to be out of formatting a week from Friday (April 8th). It then goes to the 28 day MVC ballot (complete May 5th), then published immediately.**

March 05, 2011

The SAE Hybrid Committee reported that the edited SAE J2847/1 document has been reballoted and approved by the Hybrid Subcommittee and that the larger Mobility Committee has received it for review and reballot. This 30 day process should be complete by middle of March for submission to [CSWG](#)/SGAC for review and forwarded to [SGIP](#) Governing Board for consideration.

December 20, 2010

The [SGIP](#) Governing Board today approved three key sets of standards, the first to emerge from the Priority Action Plan (PAP) teams. The Board's approval signifies that these standards are now ready for inclusion on the [SGIP](#) Catalog of Standards, where they will guide the development of an interoperable Smart Grid.

"The [SGIP](#) Governing Board's approval of these standards marks a significant step forward for the Smart Grid," says NIST's George Arnold, the National Coordinator for Smart Grid Interoperability. "PAP 1 defines the suite of Internet protocols (IP) that will be used in the Smart Grid, providing a key foundation for communications network interoperability. The electric vehicle charging standards recommended by PAP 11 will facilitate growing use of electric vehicles without overloading the grid."

November 30, 2010

PAP 11 submitted to [SGIP](#) Governing Board the following SAE standards for inclusion on [SGIP](#) approved Smart Grid standards list.

SAE J1772-TM-2010 Electric Vehicle and Plug in Hybrid Electric Vehicle Conductive Charge Coupler

SAE J2836/1 Use Cases for Communication Between Plug-in Vehicles and the Utility Grid

SAE J2847/1 Communication between Plug-in Vehicles and the Utility Grid

[SGIP](#)-GB accepted SAE J1772-TM-2010 and J2836/1 for submission to the full Governing Board for ballot.

[SGIP](#)-GB rejected SAE J2847/1 based on recommendation by [CSWG](#) to remove current cybersecurity language and address SGAC comments.

SAE has reopened SAE J2847/1 for updating based on [SGIP](#) inputs. Plans are to have this reballoted by SAE Hybrid Technical Committee by end of 2011Q1 and resubmission to [SGIP](#)-GB for acceptance by early 2011Q2.

Work from SAE J2847/1 has been provided to the Smart Energy Profile/SAE joint task force for development of SEP 2.0 Application Specification 0.9 Section 11 PEV Interfaces. This work should be released to the community in early 2011Q2.

All ongoing PEV efforts will be handled by [PEV \(V2G\) Task Group](#) and subsequent PEV PAPs.

<http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/V2G>

PAP 11 Tasks Deliverables Summary

Task 1: D1, D5, D9: PEV Use Cases

<http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/PAP11PEVUseCases>

Leads:

Arindam Maitre (EPRI), Nathan Tenney (PNL)

The following are the current use cases developed by PAP 11 PEV Working Groups:

- Different_utility_plans_to_identify_the_basic_customer_attributes_V1.doc
- Electric_Vehicle_Diagnostics_v1_1.doc
- Electric_Vehicle_Load_Management_v1.1.doc
- Electric_Vehicle_Roaming_v1.1.doc
- EV_Network_test_v1.1.doc
- PEV_as_Storage_Scenario_V1.doc
- PEV_default_charge_modes_v1.0.doc
- PEV_Participates_in_Utility_Programs_V1.doc
- Use_Case_-_Utility_Provides_Accounting_Services_to_PEV_Customer.doc
- Utility_provides_services_to_PEV_Customer_to_enrolls_in_program_and_PEV_is_registered_on_home_network_V1.doc
- Impact_of_PEV_as_Load_and_Electric_Storage_on_Distribution_Operations.doc

This development satisfies PAP 11 Task 1A - Use cases in [SGIP](#) format. These use cases and requirements were used as input for development of SAE J2836/1 and SAE J2847/1.

Task 2: D7 - Drafting high level information model

<http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/PAP11Objective7>

Leads: Greg Robinson (Extensible Solutions), Robby Simpson (GE)

PAP 11 is using the Common Information Model (CIM) for constructing PEV information models, information sets and for exchange of information in messages between PEV and EVSE and utility/3rd party providers. PAP 11 Information Models have been developed under Smart Energy 2.0. Smart Energy 2.0 has been developed as a CIM extension. All CIM based PEV models are being submitted to IEC TC57 Working Groups for adoption.

This development satisfies PAP 11 Task 3 - Draft high level information model, evolve robust object models.

Task 3: D2 - Need to overcome collaborative difficulties among SDOs

<http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/PAP11Objective2>

Leads: Greg Robinson (Extensible Solutions), Robby Simpson (GE)

PAP 11 is using Common Information Model for constructing PEV information models, information sets and for exchange of information in messages between PEV and EVSE and utility/3rd party providers. Smart Energy Alliance, an industry group consisting of [ZigBee](#) Alliance, [HomePlug](#) Alliance, and Wi-Fi Alliance have developed Smart Energy 2.0 to facilitate the development and adoption of Smart Grid functionality at customer premises over Home Area Networks (HANs).

<http://www.zigbee.org/Markets/ZigBeeSmartEnergy/Version20Documents.aspx>

In March 2010, SAE and Smart Energy Alliance signed a Memorandum of Understanding agreeing to work together on defining Smart Energy information models for PEVs. Smart Energy information models has developed HAN device information models based on CIM.

This development satisfies PAP 11 Task 2 - The need to overcome collaborative difficulties among SDOs.

Task 4: D3 - Map 61968 and 61850

<http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/PAP11Objective3>

MOVED TO NEW PEV IMPLEMENTATION PAP

Task 5: D6 – Reviewing regulations with regulators

<http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/PAP11Objective6>

MOVED TO [V2G](#) DEWG

Task 6: D4 - Review related standards for barrier to PEV adoption

<http://collaborate.nist.gov/twiki-sggrid/bin/view/SmartGrid/PAP11Objective4>

Lead: Efrain Ornelas (PG&E)



NIST_Task_6_summary_report_5_10_2010.doc

[http://collaborate.nist.gov/twiki-
sggrid/pub/SmartGrid/PAP11Objective4/NIST_Task_6_summary_report_5_10_2010.doc](http://collaborate.nist.gov/twiki-
sggrid/pub/SmartGrid/PAP11Objective4/NIST_Task_6_summary_report_5_10_2010.doc)

This development satisfies PAP 11 Task 6 - Define all SDO related activities.

Task 7: D8 - SAE Evaluation of PLC for PEVs

[http://collaborate.nist.gov/twiki-
sggrid/bin/view/SmartGrid/PAP11Objective4](http://collaborate.nist.gov/twiki-
sggrid/bin/view/SmartGrid/PAP11Objective4)

MOVED TO PEV IMPLEMENTATION PAP

SAE Standards - Released

SAE J1772-TM PEV Connector Standard Released: Electric Vehicle and Plug in Hybrid Electric Vehicle Conductive Charge Coupler, 2010-01-15

http://standards.sae.org/j1772_201001/

SAE J2836-1 PEV Use Cases Standard Released: Use Cases for Communication Between Plug-in Vehicles and the Utility Grid, 2010-04-08

http://standards.sae.org/j2836/1_201004/

SAE J2847-1 PEV Communications Requirements Released: Communication between Plug-in Vehicles and the Utility Grid, 2010-06-16

http://standards.sae.org/j2847/1_201006

Updated April 12, 2011

A#	Current Activities and Accomplishments	S	D#	Deliverable
A3	Provided extensive input to Smart Energy Profile 2.0 SRS 0.9 requirements for PEV messages and information exchange sets.	✓	D1	PEV Use Cases
		✓	D2	Memo SAE and Smart Energy
		✓	D3	Map 61968 and 61850
A4	Joint Collaboration with IEC TC57, WG 14, 17, 19, TC69 (PEV) July 2010	✓	D4	Define all SDO related activities
		✓	D5	Use Cases in SGIP format
A5	PEV Information Model developed in CIM as extension defined by SEP 2.0 SRS 0.9, Harmonization between IEC 61968 (CIM) and IEC 61850 as proposed by EPRI study	✓	D6	Organize Regulatory Advisors Task Force
		✓	D7	Drafting high level information model, evolve robust object models
A6	Set up Regulatory Affairs Task Force in July 2010 with 6 initial states participating	✓	D8	SAE Evaluation of PLCs for PEVs
		✓	D9	Complete list of PEV Requirements
A7	Face-to-Face meeting in July 2010 in conjunction with OpenSG User group meetings. Next meeting scheduled in October 2010.	✓	D10	Need to overcome collaborative difficulties with IEC
		✓	D11	Develop requirements for Level 3 and DC connector and hand off to new PEV PAP
A9	Face-to-Face meetings with EPRI Infrastructure			



	Working Council. Met jointly in September 1-2, 2010, next meeting December, 2010 in Detroit, MI.
A10	SAE J1772-TM PEV Connector Standard Released: Electric Vehicle and Plug in Hybrid Electric Vehicle Conductive Charge Coupler, 2010-01-15
A11	SAE J2836-1 PEV Use Cases Standard Released: Use Cases for Communication Between Plug-in Vehicles and the Utility Grid, 2010-04-08
A12	SAE J2847-1 PEV Communications Requirements Released: Communication between Plug-in Vehicles and the Utility Grid, 2010-06-16
A13	SGiP Face-to-Face Meeting with PAP 11 in St. Louis, MO
A14	SEP 2.0 Application Specification Section 11, PEV messages and information sets, in final phase of development
A15	SAE J1772-TM, J2836/1, J2847/1 submitted to SGiP Governing Board for review
A16	SGiP -GB approved vote for acceptance of SAE J1772-TM, J2836/1. Requested that SAE J2847/1 be updated to address CSWG , SGAC inputs

I#	Issues, Concerns & Help Needed
I2	Coordinate with PAP 15 – PLC communication. Provide requirements.
I3	Coordinate with PAP07 – Energy Storage. Provide requirements

S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
✓	TPMO1	PAP Initiation	2009-09	2009-09	PAP11WG	
The "A" TPMO Tasks listed below are for SAE J1772-TM and J2836/1						
✓	A-TPMO2	SSO Identified	2009-10	2009-10	PAP11WG	
✓	A-TPMO3	Requirements Handoff to SSO	2010-08	2010-08	PAP11WG	
✓	A-TPMO4	Standards Handback to PAPWG from SSO	2010-08	2010-08	SSO	
✓	A-TPMO5	GB/SGiP Vote	2010-12	2010-12	Administrator	
🔄	A-TPMO6	Plenary Vote	2011-04		Administrator	
🔄	A-TPMO7	Post to Catalog or IKB	2011-04		PAP11WG	
The "B" TPMO Tasks listed below are for SAE J2847/1						
✓	B-TPMO2	SSO Identified	2009-10	2009-10	PAP11WG	

✓	B-TPMO3	Requirements Handoff to SSO	2011-01	2011-01	PAP11WG	
🌟	B-TPMO4	Standards Handback to PAPWG from SSO	2011-05		SSO	
🌟	B-TPMO5	GB/SGIP Vote	2011-07		Administrator	
🌟	B-TPMO6	Plenary Vote	2011-09		Administrator	
🌟	B-TPMO7	Post to Catalog or IKB	2011-09		PAP11WG	
🌟	TPM10	PAP Complete	2011-09		SGIPGB	
S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Assemble PEV related use cases	2009-12	2009-12	Arindam Maitre EPRI	D1
✓	T1A	Use Cases in SGIP format	2010-01	2009-12	Nathan Tenney PNL	D5
✓	T1B	Complete PEV Data Communication Requirements for delivery to SSOs	2010-08	2010-08	Jerry Melcher, EnerNex	D9
✓	T2	Drafting high level information model, evolve robust object models	2010-02	2010-02	ZigBee SEP (Greg Robinson - Extensibel Solutions / Robby Simpson, GE)	D7
✓	T3	Need to overcome collaborative difficulties among SDOs	2009-08	2009-09	SAE (Jose Salazar, SCE)	D2
✓	T3A	Need to overcome collaborative difficulties with IEC	2010-06	2010-06	Eric Simmon, NIST	D10
✓	T4	Produce 61968 and 61850 documents for IEC meeting	2010-04	2010-04	TC57 WG 14,17,19 (Greg Robinson)	D3
✓	T5	Reviewing regulations with regulators	2010-05	2010-05	NEMA (Ben Biroshchak) CPUC (Adam Langton)	D6

✓	T6	Review related standards for barrier to PEV adoption	2010-04	2010-05	SAE (Efrain Ornelas)	D4
✓	T7	SAE Evaluation of PLC for PEVs	2010-07	2010-07	SAE (Rich Scholer, FORD)	D8
✓	T8	Develop requirements for Level 3 and DC connector and hand off to new PEV PAP	2010-08	2010-08	NIST (Eric Simmon)	D11

Status	Schedule	Deliverables	Resources
Sep 2010			
Oct 2010			
Nov 2010			
Dec 2010			
Jan 2011			
Feb 2011			
Mar 2011			
Apr 2011			

Status of PAP12: Mapping IEEE 1815 (DNP3) to IEC 61850 Objects

Updated April 12, 2011

A#	Current Activities and Accomplishments	S	D#	Deliverable				
A1	PAP-12 WG is working with the NIST program manager, the CSWG and the SGAC to prepare a standards recommendation for IEEE Std 1815 - 2010 to the SGIP Governing Board. contractor and PAP-12 volunteers have continued to add to the draft of the document for IEEE Std P1815.1	✓	D1	Use Case Diagrams and Data Flow Diagrams				
		✓	D2	Scope Description and Outline				
		✓	D3	Use Case Descriptions and Requirements				
		✓	D4	IEEE Std 1815 (DNP3)				
		✓	D11	IEEE PAR for IEEE P1815.1 mapping specification				
		✓	D12	Draft IEEE P1815.1 mapping specification				
A2	IEEE Working Group C14 is working as fast as possible to complete the work for IEEE Std P1815.1. IEEE C14 leadership consists of Lee Smith, Chair; Ron Farquharson, Vice Chair; Sam Sciacca, Secretary.	🟢	D13	IEEE IEEE 1815.1 mapping specification published as an IEEE standard				
		🟢	D5	IEC 61850-80-2 (Joint Logo) New Work Item Proposal				
A3	The Mapping Sub-Group of WG C14 consisting of key technical experts in IEC 61850 and/or IEEE 1815 are writing the core content of P1815.1 document.	🟢	D6	IEC 61850-80-2 (Joint Logo) Mapping Specification published				
A4	The NIST contractor will continue to provide editorial support for the P1815.1 until the first full draft of the document is complete.	🟢	D7	DNP3 Application Note - IEC 61850 Integration				
		🟢	D8	Changes to IEC 61580 Specifications				
		🟢	D9	Changes to DNP3 Specifications				
A5	Collaboration is continuing between IEEE WG C14 and IEC WG 10. The objective is to submit the published IEEE P1815.1 standard to the IEC for a joint logo standard in the future.	🟢	D10	Example DNP XML and SCL files				
A6	IEEE WG C14 attended the last IEC WG10 meeting (remotely) to review the direction and status of the P1815.1 development work. The IEC WG10 was in agreement with the direction of the work and indicated an intention to support the dual logo standard in the future.							
A7	PAP-12 WG is working with the CSWG and the SGAC to conduct preliminary detailed reviews of the draft P1815.1 document prior to publication.							
A8	We have approached the IEEE SA staff to ask if they are able to support the new IEEE Std P1815.1 mapping specification on an accelerated basis.							
A9	IEEE Working Group C12 plan to add the DNP3 Secure Specification (V4) to the 2011 update of IEEE Std 1815							
A10	Continuing coordination with PAP-7. A draft guide on "how you use DNP for communications with inverters" to address current industry needs has been released. The IEEE P1815.1 Mapping document will address known requirements for inverter communications using IEC 61850 which will lead to the use of 61850-7-420.							
I#	Issues, Concerns & Help Needed	S	T#	PMO PAP	Due	Actual	Resp	D#


















































		Milestones				
✓	TPMO1	PAP Initiation	2009-09	2009-09	SGIP	
✓	TPMO2	SSO Identified	2009-11	2009-11	SGIP	
✓	TPMO3	Requirements Handoff to SSO	2010-05	2010-05	SGIP	
●	TPMO4	Standards Handback to PAPWG from SSO	2011-10		SDO	D4, D6, D7
●	TPMO5	GB/SGIP Vote	2011-11		Administrator	
●	TPMO6	Plenary Vote	2011-11		Administrator	
●	TPMO7	Post to Catalog or IKB	2011-11		PAP12WG	
●	TPMO8	Close PAP	2011-12		PAP12WG	
S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Create a proposed outline for a new scoping document.	Jan-2010	Jan-2010	Ron Farquharson	D2
✓	T2	Create data flow diagrams	Mar-2010	Mar-2010	Grant Gilchrist	D1
✓	T3	Create drafts of the use case description based on the topology diagrams	Apr-2010	Apr-2010	Grant Gilchrist	D3
✓	T4	Support IEEE PES Substations WG-C12 with IEEE P1815 - new IEEE standard for DNP	May-2010	May-2010	Ron Farquharson, Lee Smith, Parker McCauley	D6
✓	T5	Define what key data types are	May-2010	May-2010	Rick Murphy	D7

		required for SCADA				
✓	T6	Modify existing architecture diagrams to add DNP to field devices, electronic security perimeter	Apr-2010	Apr-2010	Rick Murphy	D1
✓	T7	Locate example mappings (existing products) for DNP3 to IEC61850	October-2010	Oct-2010	Parker McCauley	D10
✓	T8	Finalize outline for the IEC 61850-80-2 Technical Report (Mapping DNP with 61850)	September-2010	Sept-2010	Grant Gilchrist / Christoph Brunner	D6
🟢	T9	Finalize outline for the (DNP Technical Committee sponsored) guideline for mapping DNP3 with IEC 61850.	July 2011		Rick Murphy	D7
✓	T10	Develop PAR for new IEEE standard	November-2010	Dec-2010	Lee Smith / Ron Farquharson	D11
✓	T11	Develop draft IEEE mapping specification for review by IEEE C14 working group	January 2011	January 2011	NIST Contractor (ESTA/Quanta) & IEEE C14	D12
🟢	T12	Develop the	Nov-2011		Christoph	D5

Brunner

New Work
Item
Proposal for
the IEC
61850-80-2
technical
specification.

Status	Schedule	Deliverables	Resources
January 2010			
February 2010			
March 2010			
April 2010			
May 2010			
June 2010			
July 2010			
August 2010			
September 2010			
October 2010			
November 2010			
December 2010			
January 2011			
February 2011			
March 2011			
April 2011			

Status of PAP13: Harmonization of IEEE C37.118 with IEC 61850 and Precision Time Synchronization

Updated April 12, 2011

















































A#	Current Activities and Accomplishments	S	D#	Deliverable
A1	A sub-group of IEC WG-10 continues to update the IEC 61850-90-5 technical report which has been released for comments.	✓	D1	Harmonization use cases and requirements
A2	The technical report was reviewed by IEC WG 10 at their last meeting in Brisbane. The document received good support from the WG.	✓	D2	C37.118 Enhancement (gaps) List
A3	All (but one) comments from WG 10 have now been incorporated into the latest draft of 61850-90-5	🟢	D3	IEC 61850-90-5 Mapping document
A4	Preliminary detailed reviews of the draft technical report are under way by the CSWG and the SGAC. The CSWG has been active with important additions being proposed to the standard (cyber key management)	✓	D4	1588 Time Sync Demo
A5	In addition, the cyber security portion (group key management) has been reviewed by the IEC WG-15 Sub-Task Force and this is now complete.	🟢	D5	1588 Power Profile - IEEE PC37.238
A6	Working group IEEE PSRC H7/C7 - IEEE PC37.238 (Power Profile for IEEE 1588) have successfully balloted the document and are addressing the comments.	🟢	D6	Amendments to IEC 61850 documents
A7	Draft standard is now at draft version 5.8 with focus on addressing time inaccuracy	🟢	D7	Amendments to IEEE C37.118 document(s)
A8	Successful plugfest has been completed in Germany recently achieving a high degree of time accuracy (200nS). In addition relevant suggestions for the standard were developed.	🟢	D8	Guideline for Harmonizing C37.118-2005 with IEC 61850
A9	Comments from the IEC have been received regarding IEEE PC37.238 (Power Profile for IEEE 1588). A dual logo standard is expected.			
A10	Preliminary detailed reviews of the draft standard (PC37.238) are under way by the CSWG and the SGAC.			
A11	NIST contractor has published a draft discussion document with recommendations for PAP-13			

I#	Issues, Concerns & Help Needed	S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
		✓	TPMO1	PAP Initiation	2009-	2009-	SGIP	

		PAPWG from SSO				D8
	TPMO5	GB/SGIP Vote	2011-11		Administrator	
	TPMO6	Plenary Vote	2011-11		Administrator	
	TPMO7	Post to Catalog or IKB	2011-11		PAP13WG	
	TPMO8	Close PAP	2011-12		PAP13WG	

S	T#	PAP Work Tasks	Due	Actual	Resp	D#
	T1	Requirements document for Synchrophasors	Sep-2009	Oct-2009	Mark Adamiak	D1
	T2	Create outline for IEC mapping document (IEC 61850-90-5)	June-2010	June-2010	HTF3 - Joint IEEE/IEC	D3
	T3	Create the draft IEC mapping document (90-5)	Sep-2010	July-2010	IEC WG10	D3
	T4	IEEE PSRC H7 - Power Profile for IEEE 1588 - sponsor ballot	Nov-2010	Nov-2010	IEEE H7/C7	D5
	T5	Interop demo 1588	Jan-2010	Jan 2010	IEEE H7/C7	D4
	T6	Validate time synchronization requirements for testing	June-2011		NIST Contractor	D5
	T7	Differences in time stamps C37.118 / IEC 61850	Sep-2010	Oct-2010	IEEE H7 / TC57/WG10	D3
	T8	Amendments to IEC 61850 (if applicable)	June-2011		TC57/WG10	D6
	T9	NIST Testbed for 1588 - Requirements	July-2011		NIST Contractor	D5
	T10	Create a list of enhancements and gaps for C37.118-2005	May-2010	May-2010	Mark Adamiak	D2, D7
	T11	Outline for the Guideline for Harmonizing C37.118-2005 with IEC 61850	July-2011		NIST Contractor	D8

Status	Schedule	Deliverables	Resources
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January 2010			
February 2010			
March 2010			
April 2010			
May 2010			
June 2010			
July 2010			
August 2010			
September 2010			
October 2010			
November 2010			
December 2010			
January 2011			
February 2011			
March 2011			
April 2011			

Status of PAP14: Transmission and Distribution Power Systems Model Mapping (11.2.1)

Updated April 8, 2011.

A#	Current Activities and Accomplishments	S	D#	Deliverable
A9	Priority Process Tool Revised to 8 Criteria Dual Path Approach:Key Applications and Standards Development Priority Tools pushed out to the PAP 14 members and the T&D DEWG for review and critique	✔	D1	Report on the impact of C37.239 on CIM and IEC 61850
		✔	D2	A master list of use cases (task 6)
		🔴	D3	New and refined use cases (task 7)
A10	Comfede Standard Now Complete as an IEEE Standard C37.239 for Event Management: Integrates IEC 61850 and XML	🟡	D4	Updates of models (task 7)
A3	Transmission Bus Load Model scoped as initial key Use Case for Integration of Transmission and Distribution Dynamics			
A8	Development of list of use cases in cooperation with SDOs			

I#	Issues, Concerns & Help Needed	S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
I0	Now working on a priority process to effectively rescope PAP to work with multiple key SDO Working Groups	✔	TPMO1	PAP Initiation	2009-09	2009-09	SGIP	
I1	Work requires specialized expertise from participants within the key SDOs: IEEE PSRC, IEC TC 57, Other	✔	TPMO2	SSO Identified	2010-01	2010-01	IEC TC 57 WGs,13,19,IEEE PSRC	
I3	Now must work to coordinate across SDO activities developing use cases for specialized Standards needs:	🟡	TPMO3	Requirements Handoff to SSO	2011-05			
	Need to integrate key applications development with standards development needs	🟡	TPMO4	Standards Handback to PAPWG from	2011-07			

14	Need expert help in developing identified use cases in sufficient detail to contribute to standards development
15	Need to apply expert help in harmonization, integration and unification of key standards

		SSO				
	TPMO5	GB/SGiP Vote			Administrator	
	TPMO6	Plenary Vote			Administrator	
	TPMO7	Post to Catalog or IKB			PAP14WG	
	TPMO8	Close PAP			PAP14WG	
S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Investigating impact of IEEE PC37.239	Dec-2009	May 2010	Hughes	D1
✓	T2	In the process of creating team to identify Use Cases	April-2010	May 2010	Hughes	D2
✓	T3	Creating initial use case team – T&D DEWG	Sep-2009	March-2010	Hughes	D2
✓	T4	Creating use case master list	Dec-2009	July-2010	WG 19	D2
	T5	Refining use cases	May-2011		WG 19	D3
	T6	Identifying and assigning use cases – IEEE and IEC TC57 and other	April-2011		IEEE PSRC, IEC TC57	D3
	T7	Develop contributions to communication objects and system models	May-2011		IEEE PSRC, IEC TC57	D4
	T8	Prioritizing Use Cases for Most Critical Needs	March-2011		IEEE, T&D DEWG, IEC, NASPI	D5
	T9	Refocusing PAP to Priority Needs	Feb-2011		IEEE, T&D DEWG, IEC, NASPI	

Status	Schedule	Deliverables	Resources
January 2010			
February 2010			
March 2010			
April 2010			
May 2010			
June 2010			
July 2010			
Aug 2010			
Sept 2010			
Oct 2010			
Nov 2010			
Dec 2010			

Jan 2011			
Feb 2011			

Status of PAP15: Harmonize Power Line Carrier Standards for Appliance Communications in the Home

Updated Feb 23, 2010.

A#	Current Activities and Accomplishments	S	D#	Deliverable
A8	Harmonization of coexistence between IEEE and ITU-T completed successfully. Now the ISP-based broadband PLC coexistence mechanism has been ratified by ITU-T as Recommendation G.9972 and by IEEE in the 1901 standard. PAP 15 approved final recommendations to the SGiP during the SGiP Chicago meeting on Dec 2, 2010.	✓	D1	Final Task 1 Deliverable and supporting documents
		✓	D2	Final Task 2 Deliverable
		✓	D3	NB coexistence mechanism
		✓	D4	Harmonized BB Coexistence standards, P1901, G.9972, standards available from IEEE, ITU-T
		✓	D5	Announcement of joint IEEE ITU-T work on NB standard.doc
		✓	D6	Development of output report on Broadband Coexistence
		✓	D7	Approved requirement specification for Narrowband Power Line Communications standards
		🟢	D8	Interoperable Joint NB PLC Standard
A9	Developing appliance centered NB-PLC requirements with input from AHAM and OpenSG / Communications. Report now in draft, Accepting comments from P1901.2, Finalizing report.			

I#	Issues, Concerns & Help Needed	S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
		✓	TPMO1	PAP Initiation	2009-10	2009-10	Administrator	All
				The "A" TPMO Tasks listed below are for NarrowBand Standards				
		✓	A-TPMO2	SSO Identified	2010-07	2010-08	PAP15WG	
		✓	A-TPMO3	Requirements Handoff to SSO	2010-11	2011-02	PAP15WG	
		✓	A-TPMO4	Standards Handback to PAPWG from SSO	2011-??	2011-??	SSO	
		🟢	A-TPMO5	GB/SGiP Vote	2011-05		Administrator	
			A-TPMO6	Plenary Vote			Administrator	
			A-TPMO7	Post to Catalog or IKB			PAP15WG	
				The "B" TPMO Tasks listed below are for BroadBand Standard(s)				
		✓	B-TPMO2	SSO Identified	2010-06	2010-06	PAP15WG	
		✓	B-TPMO3	Requirements Handoff to SSO	2010-11	2011-01	PAP15WG	
		🟢	B-TPMO4	Standards Handback to PAPWG from SSO	2011-04		SSO:IEEE,ITU-T	

	B-TPMO5	GB/SGIP Vote			Administrator	
	B-TPMO6	Plenary Vote			Administrator	
	B-TPMO7	Post to Catalog or IKB			PAP15WG	
	TPMO8	PAP Complete			PAP15WG	
S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Create a list of existing PLC technologies and revise them according to home appliances requirements	March 23rd, 2010	March 23rd, 2010	Subgroup on coexistence	D1-Final deliverable posted
✓	T2	Create a list of existing coexistence mechanisms and revise them according to home appliances requirements	March 23rd, 2010	April 13th, 2010	Subgroup on coexistence	D2-Final deliverable posted
✓	T3	Harmonize coexistence standards if multiple candidates are found	IEEE and ITU finalize the alignment of the BB-PLC coexistence specs	June 2010	BB Task Force of Subgroup on coexistence	D4-Work completed, BB coexistence standards approved by ITU-t and IEEE in June 2010.
✓	T4	Develop Narrow Band (NB) Coexistence mechanism	April 2010	April 27, 2010	NB Task Force of Subgroup on coexistence	D3-Report delivered,
🟢	T5	Select an SDO to develop interoperable NB standard	June 2010		Subgroup on coexistence	Voting postponed, July 27, await joint SDO proposal, D5-

						IEEE, ITU-T joint announcement delivered. (this task may be deleted or completed based on changes in direction).
	T6	Develop Appliance Centered NB-PLC Requirements	November 2010	Feb 23, 2011	PAP-15 - Requirements	D7-requirement specification approved, Feb 7, 2011; delivered to SDOs Feb 23, 2011
	T7	IEEE and ITU-T to jointly develop a NB PLC standard	TBD			D8-standard specification

Status	Schedule	Deliverables	Resources
January 2010			
February 2010			
March 2010			
April 2010			
May 2010			
June 2010			
July 2010			
August 2010			
September 2010			
October 2010			
November 2010			
December 2010			
January 2011			
February 2011			

Status of PAP16: Wind Plant Communications

Updated April 12, 2011.

A#	Current Activities and Accomplishments	S	D#	Deliverable		
A1	Requirements mapped to E61400-25	✓	D1	Requirements related to wind power plant communications from use cases		
A2	Gaps identified, identifying recommendations					
A3	NIST letter to IEC SG3 sent	✓	D2	Requirements mapping and gaps existing between 61400-25 standard and Task 1 use cases		
A4	Recommendations to IEC being written					
A5	Contacted TC88 and SG3 at IEC to start the process	🟢	D3	Best practices on the application of 61400-25 in the US		
A6		🟢	D4	Specific recommendations to the IEC TC 88 working group		
A7						

I#	Issues, Concerns & Help Needed	S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
I1	A meeting at WindPower2011 on May 24 at 3:30 PM has been arranged for presenting to the wind producers and regulators.	✓	TPMO1	PAP Initiation	2010-01	2010-01	SGIP	
		✓	TPMO2	SSO Identified	2010-02	2010-08-05	PAP16wg	D1
		🟢	TPMO3	Requirements Handoff to SSO	2011-06	Maintenance Team formed for 61400-25	PAP16wg/SSO	D4
		🟢	TPMO4	Standards Handback to PAPWG from SSO	2011-11		SSO	
		🟢	TPMO5	GB/SGIP Vote	2011-11		Administrator	
		🟢	TPMO6	Plenary Vote	2011-11		Administrator	
		🟢	TPMO7	Post to Catalog or IKB	2011-11		PAP16wg	
		🟢	TPMO8	Close PAP	2011-12		PAP16wg	

S	T#	PAP Work Tasks	Due	Actual	Resp	D#
✓	T1	Develop requirements related to wind power plant communications from use cases	June-2010	June-2010	UWIG et al	D1
✓	T2A	Map the requirements of task 1 into 61400-25.	July-2010	August 2010	PAP 16/61400-25 User Group	D2
✓	T2B	Identify Gaps and	September	September	PAP 16	D2

		develop recommendations.	2010	2010		
	T3	Develop a best practices list for the application of 61400-25. Identify opportunities to harmonize the CIM and 61400-25	June-2011		UWIG/All	D3
	T4	Provide specific recommendations to IEC TC 88 through USTAG for 61400-25 and follow-up	June-2011		All/UWIG/61400-25 User Group	D4
	T5	Coordinate with PAP 7 in extending ES-DER standards to transmission level	September-2010	September 2010	PAP 16 / PAP 7	D4

Status	Schedule	Deliverables	Resources
September 2010			
October 2010			
November 2010			
December 2010			
January 2011			
February 2011			
March 2011			
April 2011			

Status of PAP17: Facility Smart Grid Information Standard

Updated April 1, 2011.

A#	Current Activities and Accomplishments
A10	The PAP17WG completed its review of use cases and accepted a set to form the core of PAP17 recommendations on 12/2/2010.
A11	The PAP17WG began its review of the core requirements for PAP17 on 12/2/2010.
A12	The PAP17WG completed its review of the core requirements for PAP16 on 01/05/2011.
A13	The PAP17WG has handed off its core requirements to ASHRAE for consideration.
A14	The PAP17WG leadership is closely monitoring the efforts of ASHRAE with respect to model development and standard creation.

I#	Issues, Concerns & Help Needed
I5	Face-to-face meeting in Chicago accelerated some of the work but the group is still a bit behind on creating and accepting requirements.
I6	The ASHRAE SPC201P will be performing their modeling in February with a tight schedule. The teams are built around "Generator", "Load", "Energy Manager" and "Meter".
I7	The ASHRAE SPC201P held a model review virtual meeting on March 4 and a face-to-face meeting March 22-23. The model teams are updating the models based on feedback and there is an expectation to have a draft public review standard by April 30.

S	D#	Deliverables
	D1	Use Cases
	D2	Information Models
	D3	Draft Standard
	D4	Published Standard
	D5	Requirements

S	T#	PMO PAP Milestones	Due	Actual	Resp	D#
	TPMO1	PAP Initiation	2010-07	2010-07	SGIP	
	TPMO2	SSO Identified	2010-07	2010-07	PAP17WG	
	TPMO3	Requirements Handoff to SSO	2011-01	2011-01	PAP17WG	D1
	TPMO4	Standards Handback to PAPWG from SSO	2011-06		ASHRAE	D3
	TPMO5	GB/SGIP Vote	2011-06		Administrator	
	TPMO6	Plenary Vote	2011-06		Administrator	
	TPMO7	Post to Catalog or IKB	2011-07		PAP17WG	
	TPMO8	Close PAP	2011-07		PAP17WG	

S	T#	PAP Work Tasks	Due	Actual	Resp	D#
	T1	Form ASHRAE Standard Project Committee (SPC) to execute the tasks from this PAP	2010-07	2010-07	ASHRAE	D1
	T2	Assemble data requirements from existing use cases referenced above	2011-02		ASHRAE	D2
	T3	Initiate public review of draft Facility Smart Grid	2011-04		ASHRAE	D3



	Information Standard			
	T4 Publication of final Facility Smart Grid Information Standard	2011-06		ASHRAE D4

Status	Schedule	Deliverables	Resources
August 2010			
September 2010			
October 2010			
November 2010			
December 2010			
January 2011			
February 2011			
March 2011			
April 2011			


[TnD](#) DEWG Status

Updated February 7, 2011

A#	Current Activities and Accomplishments	S	D#	Deliverable
A1	Setup and staff subgroups		D1	Roadmap
A2			D2	Advanced Use Cases
A3				

I#	Issues, Concerns & Help Needed	S	T#	PAP Work Tasks	Due	Actual	Resp	D#
I1	Completing new PAP proposals		T1	Road Map	2011-06			D1
I2			T2	Advance use cases	2011-04			D2

Status	Schedule	Deliverables	Resources
Jan 2011			
Feb 2011			

[H2G](#) DEWG Status

Updated April 7, 2011

Activities and Accomplishments	Upcoming Key Milestones and Activities
<ul style="list-style-type: none"> ▪ Focus on strategic perspective for the H2G domain ▪ Provide smart grid H2G interoperability requirements ▪ Identify regulatory and policy issues ▪ Evolve the NIST SG Interoperability Framework ▪ Evaluate PAP progress & provide support ▪ Issued six white papers 	<ul style="list-style-type: none"> ▪ Work with EMIIWG on consumer device EMC issues ▪ Monitor U-SNAP/EPRI appliance socket spec. merger ▪ Advance merged appliance socket spec. to a standard ▪ Coordinate DR messaging options ▪ Assist the SGIP HAN TF upon request ▪ Support PAP 18 on SEP 1 to SEP 2 transition ▪ Review NIST Roadmap release 2 proposed standards ▪ Discuss CEA regulatory framework document
Deliverables	Issues, Concerns, and Help Needed
<ul style="list-style-type: none"> ▪ Completed: <ul style="list-style-type: none"> ▪ Home-to-Grid Requirements ▪ Interoperable Networks, Systems, Devices ▪ Privacy of Consumer Information ▪ Appliance Physical Layer Communications ▪ Appliance Socket Interface ▪ EMC Issues for Home-to-Grid Devices ▪ In progress: <ul style="list-style-type: none"> ▪ Appliance Socket Interface (ASI) Specification ▪ Protocol extensions of ASI for DR ▪ Standard based on ASI specification ▪ Installation guide 	<ul style="list-style-type: none"> ▪ Coordination with EMIIWG is proceeding well ▪ SGIP HAN TF stopped H2G review of SEP document ▪ Provide options for simple to complex home products ▪ Foster DR innovation by CE & appliance makers

B2G DEWG Status



Updated February 22, 2011



A#	Current Activities and Accomplishments	S	D#	Deliverable
A1	Weather Standards--how do we get weather data for facilities in a standard format		D1	Weather Information Exchange
A2	ESI white paper to help define the facility interface		D2	ESI white paper to help define the facility interface
A3			D3	Roadmap for standards interop
			D4	Advanced B2G Use Cases
			D5	Analysis of CoS Standards







I#	Issues, Concerns & Help Needed	ST#	PAP Work Tasks	Due	Actual	Resp	D#
I1	Need volunteers to help with standards evaluations	T1	Develop Weather PAP Proposal	2011-08			D1
I2	Need support from PMO for ???	T2	Develop ESI White Paper	2011-08			D2
		T3	Produce Road Map	2011-06			D3
		T4	Advance use cases	2011-04			D4
		T5	Review ASHRAE 201P	2011-08			D5
		T6	Review of ASHRAE 135	2011-08			D5

I2G DEWG Status

Updated February 7, 2011

A#	Current Activities and Accomplishments	S	D#	Deliverable
A1	Setup and staff subgroups		D1	Roadmap
A2			D2	Advanced Use Cases
A3				

I#	Issues, Concerns & Help Needed	S	T#	PAP Work Tasks	Due	Actual	Resp	D#
I1	Completing new PAP proposals		T1	Road Map	2011-06			D1
I2			T2	Advance use cases	2011-04			D2

Status	Schedule	Deliverables	Resources
Jan 2011			
Feb 2011			

V2G DEWG Status

Updated February 7, 2011

A#	Current Activities and Accomplishments	S	D#	Deliverable
A1	Setup and staff 7 subgroups		D1	Roadmap
A2	March 1 Brainstorm Workshop		D2	Advanced Use Cases
A3	Reviewing fast charge PAP proposal			

I#	Issues, Concerns & Help Needed	S	T#	PAP Work Tasks	Due	Actual	Resp	D#
I1	Completing PAP11 2847		T1	Road Map	2011-06		Karthik Krishna Colorado Springs Utility	D1
I2	Completing new PAP proposals		T2	Advance use cases	2011-04		Jerry Melcher	D2

Status	Schedule	Deliverables	Resources
Jan 2011			
Feb 2011			

BnP DEWG Status

Updated February 7, 2011

A#	Current Activities and Accomplishments	S	D#	Deliverable
A1	Setup and staff subgroups		D1	Roadmap
A2			D2	Advanced Use Cases
A3				

I#	Issues, Concerns & Help Needed	S	T#	PAP Work Tasks	Due	Actual	Resp	D#
I1	Completing new PAP proposals		T1	Road Map	2011-06			D1
I2			T2	Advance use cases	2011-04			D2

Status	Schedule	Deliverables	Resources
Jan 2011			
Feb 2011			